

**REMARKS**

In light of the preceding amendments and following remarks, reconsideration of the present application is requested.

Claims 1-7, 10-16, 18, and 21-27 are pending in the application. Claim 1 is an independent claim. Claims 8, 9, 17, 19, and 20 are canceled. Claims 1 and 26 are amended.

**35 U.S.C. §103 Rejections**

***Hisai/Hoang***

Claims 1, 3-7, 12-16, 18, 21-24 and 26 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Hisai et al. (U.S. Publication No. 2003/0192686, hereinafter "Hisai") in view of Hoang (U.S. Patent No. 2003/0159808, hereinafter "Hoang"). Applicants respectfully traverse these rejections.

Claim 1 recites, *inter alia*, "wherein the coolant is supplied into the heatpipe via a path and the coolant storage tank receives the coolant supplied to the heatpipe via the path."

The Examiner acknowledges that Hisai fails, "to disclose that the heat pipe is arranged in proximity and external to the plate with the heater disposed therebetween, the heat pipe and the plate being discrete elements and the heater being disposed between the heat pipe and the plate; and a coolant storage tank for supplying the coolant to the cooling element when the plate is cooled and for receiving the coolant when the plate is heated." Office Action, p. 3. The Examiner alleges that Hoang repairs the deficiency of Hisai because, "Hoang teaches a loop heat pipe apparatus (referring to figure 1) that includes an evaporator heat pipe (100), a reservoir (110), a coolant supply

line (vapor/liquid line as illustrated in figure 1), wherein a vaporizable coolant is supplied to the evaporator heat pipe from the reservoir and returned to the reservoir while a device that outputs heat positioned near the heat pipe is heated and cooled (see paragraph 22 and 24). It is noted that the device can be heated and cooled simultaneously since heat is inputted while the fluid flows through the device.” Office Action, pp. 3-4.

A loop heat pipe disclosed in *Hoang* is a circulation system in which a working fluid stored in a reservoir 110 sequentially passes an ECP 100, a vapor line, a condenser 130 and a liquid line. *Hoang*, FIG. 1 and paragraph [0022]. Accordingly, in the loop heat pipe of *Hoang*, a line through which the working fluid stored in the reservoir 110 is supplied to the ECP 100 is different from a line through which the working fluid supplied to ECP 100 is returned to the reservoir 110. *Id.* *Hoang* discloses a unidirectional liquid transport path. A line to which the working fluid is supplied from the reservoir 110 can't be a line through which the working fluid supplied from the reservoir 110 is returned to the reservoir 110 at least because the loop heat pipe of *Hoang* is a circulation system. *Hoang*, paragraph [0015]. For at least this reason, *Hoang* cannot disclose, “wherein the coolant is supplied into the heatpipe via a path and the coolant storage tank receives the coolant supplied to the heatpipe via the path[,]” as recited by claim 1.

*Hisai* supplies coolant unidirectionally from a source to a drain and cannot repair the deficiency of *Hoang*. *Hisai*, paragraph [0058].

Therefore, even assuming, *arguendo*, that *Hoang* could be combined with *Hisai* (which Applicants do not admit), neither *Hisai* nor *Hoang*, alone or in combination, disclose, at least, “wherein the coolant is supplied into the heatpipe via a path and the coolant storage tank receives the coolant supplied to the heatpipe via the path[,]” as recited by claim 1. Accordingly, *Hisai* in view of *Hoang* cannot render claim 1 obvious.

Claims 2-7, 10-16, 18 and 21-27 are patentable at least by virtue of their dependency from claim 1. Applicants respectfully request that the rejections be withdrawn and claims 1-7, 10-16, 18 and 21-27 be allowed.

***Hisai/Hoang/Hara***

Claims 6, 12-16, 18 and 24 stand rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Hisai et al. as modified by Hoang as applied to claims 1, 6 and 7 and further in view of Hara et al. (U.S. Patent No. 5,413,167, hereinafter "Hara"). Applicants respectfully traverse this rejection in that even assuming *arguendo* that Hoang and/or Hara could be combined with Hisai (which Applicants do not admit), the combination of references fails to render even claim 1 obvious because Hoang and Hara suffer from at least the same deficiencies as Hisai with respect to claim 1. Therefore, even in combination, Hisai in view of Hoang and Hara fails to render claims 6, 12-16, 18 and 24 obvious because claims 6, 12-16, 18 and 24 depend from claim 1. Withdrawal of these rejections is requested.

***Hisai/Hoang/Leffert***

Claims 2, 10, 11 and 25 stand rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Hisai et al. as modified by Hoang as applied to claim 1 above, and further in view of Leffert (U.S. Patent No. 3,621,906, hereinafter "Leffert"). Applicants respectfully traverse this rejection in that even assuming *arguendo* that Hoang and/or Leffert could be combined with Hisai (which Applicants do not admit), the combination of references fails to render even claim 1 obvious because Hoang and Leffert suffer from at least the same deficiencies as Hisai with respect to claim 1. Therefore, even in combination, Hisai in view of Hoang and Leffert fails to render

claims 2, 10, 11 and 25 obvious because claims 2, 10, 11 and 25 depend from claim 1. Withdrawal of these rejections is requested.

***Hisai/Hoang/Komino***

Claim 27 stands rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Hisai et al. as modified by Hoang as applied to claim 3 above, and further in view of Komino (JP 5315293, hereinafter "Komino"). Applicants respectfully traverse this rejection in that even assuming *arguendo* that Hoang and/or Komino could be combined with Hisai (which Applicants do not admit), the combination of references fails to render even claim 1 obvious because Hoang and Komino suffer from at least the same deficiencies as Hisai with respect to claim 1. Therefore, even in combination, Hisai in view of Hoang and Komino fails to render claim 27 obvious because claim 27 depends from claim 1. Withdrawal of this rejection is requested.

**CONCLUSION**

In view of the above remarks and amendments, the Applicants respectfully submit that each of the pending rejections has been addressed and overcome, placing the present application in condition for allowance. A notice to that effect is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to contact the undersigned.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the telephone number of the undersigned below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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By

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